STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

MEMORANDUM

D ATE: March 18, 2010

TO: The Board of Environmental Protection
FROM: Beth Callahan, Project Manager, Bureau of Land & Water Quality, Augusta

RE: Concerned Citizens to Save Roxbury, Barry Allen, Antonio DeSalle, Tom Currivan, Michelle Currivan, Ron Dube, Chris Dube, Nancy Fickett, Tom Ganley, Theodore Gotto, Priscilla Gotto, Leo F. Kersey, Jr., Linda Kuras, Dale Hodgkins, BJ Hodgkins, Lisa Hodgkins, Colleen Martineau, Cathy Mattson, Anne Morin, Laureen Olsen, Rob Olsen, Philip Paquette, Sarah Paquette, , Vicky Stanislawski, Todd Stanislawski, Eric Roderick, Michael Ronan, Rob Roy, Kelly Sastamoine, Richard Theriault, Matt Towle, Eben Thurston, Lester Thurston, Steve Thurston, Les Turner, Gloria Turner, Nancy Wahlstrom, Carl Wahlstrom, and the Silver Lake Camp Owners Association Appeal of Site Location of Development Act and Natural Resources Protection Act Approval #L-24441-24-A-N/L-24441-TF-B-N, Record Hill Wind Project, Roxbury

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Statutory and Regulatory References: The applicable statutory and regulatory framework for this application is the Site Location of Development Law (Site Law), 38 M.R.S.A. § 481-490; Site Location of Development Rules, Chapter 375 §§ (10) and (14); Stormwater Management Rules, Chapter 500; the Natural Resources Protection Act (NRPA) § 480; the Significant Wildlife Habitat Rules, 38 M.R.S.A. §335 (3) (C), and the Maine Wind Energy Act, Title 35-A §§ 3451 - 3455. The Site Location of Development Rules interpret and elaborate on the Site criteria and the Significant Wildlife Habitat Rules interpret and elaborate on the NRPA criteria. In the sections pertinent to this appeal, the Site Rules guide the Department in its determination of whether a project will be in compliance with noise regulations and whether the project would unreasonably adversely affect scenic character. The Stormwater Management Rules guide the Department of whether a project will be in compliance with the stormwater management law. The Significant Wildlife Habitat Rules guide the Department in its determination of whether a project's impacts on the subject wildlife would be unreasonable. The Maine Wind Energy Act sets forth additional licensing criteria specific to wind projects, pertaining to decommissioning and shadow flicker, and it alters the analysis of scenic impacts for wind projects. Procedures for appeals before the Board are outlined in the Department's Rules Concerning the Processing of Applications, Chapter 2(24)(B).

Location: The project site is located off Mine Notch Road (turbines) and on the north side of Route 120/Roxbury Notch Road (Operations & Maintenance Building and generator lead substation) in the Town of Roxbury.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

Procedural History and Project Description: On December 2, 2008, the applicant submitted a Site Law application and an NRPA application for the construction of a 50.6-megawatt (MW) wind energy generation facility known as the "Record Hill Wind Project", which is an expedited wind energy development as defined by the Maine Wind Energy Act. The proposed project consists of 22 Siemens SWT-2.3-93 wind turbines with associated turbine pads that will be constructed in a north-south orientation along the ridgeline of Record Hill, Flathead Mountain, and Partridge Peak. The proposed project also includes 6.1 miles of new access roads and crane paths, 19,500 linear feet of electrical transmission lines, a 20,700 square foot electrical collector substation, two permanent 80 meter meteorological towers, and an approximately 5,500 square foot Operations & Maintenance (O&M) building. A location map and more detailed project description are attached.

The Department received one written and one verbal request from interested parties to hold a public hearing on the proposed project. The requests for a public hearing were denied because there was insufficient credible conflicting technical information submitted regarding the licensing criteria. In response to the amount of public interest in the proposed project, the Department held a public meeting on February 18, 2009 in the Town of Rumford to provide interested parties with an opportunity to present their concerns to the Department and submit information into the Department's record.

The Department approved the permit applications on August 20, 2009. A timely appeal to the Board was filed on September 21, 2009 by the appellants listed above.

On November 3, 2009, appellants filed a request for stay of the permit, in the form of a Temporary Restraining Order to prohibit further construction of the proposed project. On December 3, 2009, the Board heard oral argument on that request. Before the Board acted upon the request, the appellants withdrew the request for a stay. The appellants withdrew their request on the premise that that all argument and documentation with regard to the petition be accepted into the record by the Board and that the issues raised in the petition be merged with their appeal of the project.

Title, Right, or Interest: Appellants assert that the applicant did not demonstrate sufficient title, right, or interest in the property proposed for development or use because the applicant does not have the necessary transmission infrastructure to connect with the electrical grid or allow the grid to safely absorb the project's output.

The applicant submitted a copy of a wind energy facility ground lease and deeds which show that the property owner has ownership over the parcel on which the development is proposed. The applicant also submitted a statement that said that electrical resources in Maine are coordinated by the Independent System Operator of New England (ISO-NE). The Record Hill Wind Project will require an upgrade of the Central Maine Power Company's grid. While the applicant may need to use an upgraded transmission infrastructure, this project and such upgrade are two separate projects; they will be owned by and the work will be supervised by two separate entities.

The Department concluded that while the upgrade to the grid system is a related project without which the proposed wind energy development would not be built; it is a sufficiently separate project and the applications for permits can be processed separately.

Environmental Issues:

1. NOISE: The appellants contend that the Department erred in its findings that the noise generated from the proposed project will have not an unreasonable effect on the surrounding environment pursuant to the operational standards as set forth in the Site Location of Development Rules, Chapter 375 §10, based on the following contentions:

   A. The sound model used to develop the sound level study for the proposed project was not designed for wind turbines;
   B. The sound level study submitted by the applicant failed to use line source calculations;
   C. The applicant's sound level study failed to adequately consider short duration repetitive sounds (SDRS) and apply a 5 dBA penalty;
   D. The Department failed to consider the health effects of nighttime noise; and
   E. The Department failed to adequately impose adequate non-compliance mitigation measures.

The Department retained a third party acoustics consultant, EnRad Consulting (EnRad), to review the sound level study that was submitted by the applicant. The sound level study used point source calculations to determine predicted noise levels. EnRad concluded that the applicant's study is technically correct according to standard engineering practices. Regarding source calculations, EnRad stated that point source and line source calculations produce the same measurements when applied correctly. Regarding SDRS (the thumping noise associated with operation of turbine blades), Chapter 375 (10) requires a penalty of +5 dBA to be incorporated into a sound level prediction model to adjust for SDRS when it is found to occur. Both the applicant's study and the Department's noise consultant concluded that the project's noise would not meet the definition of SDRDS; however, the Department found there to be sufficient concern related to the accuracy of SDRS predictability to impose monitoring requirements for that type of noise. Therefore, the Department required the applicant to implement a routine operation noise compliance assessment plan for the project as a condition of approval. As part of the plan, the applicant is required to analyze mitigation measures if it is determined that the project is not in compliance with noise regulations. Among other strategies, the applicant is required to consider and analyze potential shutdown scenarios in order to achieve compliance with noise regulations.

During review of the applications, interested parties raised concerns pertaining to potential health effects associated with wind turbines. In response to these concerns, the Department consulted with the Maine Center for Disease Control (MCDC). MCDC considered the interested parties' concerns and found no evidence in peer-reviewed medical and health literature of unreasonable adverse health affects from the noise generated by wind turbines.

2. FINANCIAL CAPACITY: Appellants assert that the applicant has not demonstrated adequate financial capacity to construct the proposed wind energy development. The appellants also contend that the Department failed to require a fully funded decommissioning account as a condition of approval. The appellants also object to the deduction of scrap value in estimated decommissioning costs.

Chapter 373(1) sets forth several forms of financial capacity demonstration which may be acceptable, but does not limit an applicant to the listed forms. The applicant submitted a letter of support from CoBank, dated October 2, 2008, which indicated that it intended to provide financing for the project.

The Department found that the applicant demonstrated adequate financial capacity to comply with Department standards provided prior to construction of the project, the applicant submitted final evidence of financial capacity. Due to a drafting and editing error, Condition #4 of the permit required the applicant to submit evidence of financial assurance prior to operation of the project instead of prior to construction of the project. This error resulted in an inconsistency in the permit between the language of the underlying Finding and the language of Condition #4.

The applicant submitted a letter from The Northern Trust Company, dated August 27, 2009, that states that the applicant has adequate funds to finance the project. The Department determined that the letter was an acceptable demonstration of financial capacity. In light of the appellants' questions regarding financial capacity, the applicant has agreed to submit to the Department updated documentation of financial capacity at least 15 days prior to resuming construction.

3. DECOMMISSSIONING: The Site Law application form requests that applicants provide a demonstration that, upon the end of the useful life of the facility, the applicant will have financial assurance in place for 100% of the total cost of decommissioning, less salvage value. At the time of the filing of this application, the Site Law permit application form stated that an applicant could propose securing financial assurance in phases, as long as complete financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the equipment.

The expected operating life of the proposed wind turbines is 20 years. The applicant stated with documentation that financial assurance will be fully established at least five years prior to the end of the project. Based upon information in the permitting record, the Department found that the applicant made adequate provisions for a decommissioning plan provided that the applicant submits demonstration of financial assurance no later than the end of year 11 of operation of the project to the Department.

Subsequent to the issuance of the permit, the Department received comments and concerns from the general public regarding the adequacy of the Department's general decommissioning requirements. In consideration of these comments and concerns, the Department has revised the decommissioning requirements for wind energy developments to provide for incremental collection of decommissioning funds beginning in year 1 of project operation and for more frequent reassessment of salvage value. The Department recommends that the Board require

additional financial provisions be included in the applicant's decommissioning. Suggested provisions are outlined below.

4. SCENIC CHARACTER, VISUAL QUALITY, AND EXISTING USES: Appellants assert that the applicant should have performed a visual impact assessment of the project specific to Roxbury Pond.
According to the Wind Energy Act, an applicant must demonstrate that the development would not significantly compromise views scenic resource of state or national significance to such an extent that it has an unreasonable adverse effect on the scenic character of the scenic resource of state or national significance. The applicant was required to assess the scenic impact of the project on resources of state or national significance located within three miles of a proposed turbine. The applicant submitted a general visual assessment which evaluated scenic resources within a three mile and eight mile radius of the proposed project. The assessment did not include Roxbury Pond.

Pursuant to that the Wind Energy Act, within the organized territory of the State, in order to be considered a scenic resource of State or national significance, a great pond must be listed as one of the 66 lakes having outstanding or significant scenic quality in the "Maine's Finest Lakes" report published by the Maine State Planning Office. Roxbury Pond is not listed as one of the 66 great ponds in the report; therefore, Roxbury Pond does not qualify as a scenic resource of state or national significance under the law. For this reason, while the applicant submitted a general visual impact assessment for the development, the applicant was not required to conduct a visual impact assessment specific to Roxbury Pond.

5. WILDLIFE: The appellants contend that the Department erred in its findings that the proposed wind energy facility would not cause an unreasonable impact on resident bald eagles on French Island in Roxbury Pond. The appellants further contend that the language in the Department's Order with regard to the post-construction avian, bat, and raptor monitoring protocol allows the applicant to reject implementing measures to protect wildlife. One of the appellants asserts that given reports of goat deaths in Taiwan and reports of the disappearance of game animals near turbines, the Record Hill Wind Project presents a risk to local wildlife or habitat.

The applicant conducted several field surveys of raptor activity including bald eagles based upon guidelines outlined by MDIFW and the U.S. Fish and Wildlife Service. Results from these studies showed relatively low use of the ridgeline by bald eagles during the surveys. MDIFW reviewed the applicant's surveys and agreed with their conclusions. As a condition of approval, the Department required local eagle-specific behavior studies to be included in post-construction avian, bat, and raptor monitoring.

Regarding the objection to the change in language in the Department's decision, the Department determined during its review process that changes to the language contained in the draft decision were necessary in order to be consistent in its final decision.

According to the Department's mapping database, the nearest pasture or open field is approximately 4500 linear feet from the ridgeline; however, the Department was not able to confirm whether domestic animals are kept at this location. Appellants supplied no evidence to indicate that the operation of the proposed project will adversely affect domestic animals.

6. STORMWATER: Four of the appellants contend that the proposed project will have an adverse effect on the water quality of Roxbury Pond. These appellants also have concerns over erosion and stormwater runoff from the project site.

The applicant submitted a stormwater management plan and an erosion and sedimentation control plan. The plans contain calculations for post-development site stormwater runoff and described the project site's erosion potential and measures to control erosion during and after construction. The plans were reviewed by the Department's Division of Watershed Management who determined the plans to be acceptable and in compliance with Department regulations.

7. SHADOW FLICKER: One of the appellants stated that not enough scientific data was presented regarding health risks from potential shadow flicker effects of the project.

Site Law requires an applicant to demonstrate that a wind energy development avoids unreasonable shadow flicker effect at distances up to 1,000 feet between the proposed wind turbines and nearby residences. The applicant submitted a model of the amount of hours of potential shadow flicker at distances of 1,000 feet and 3,000 feet. There are four residences within 1,000 meters of a wind turbine. The applicant's model indicated that none of the residences have the potential for shadow flicker.

Other Considerations: Appellants contend that the proposed wind energy development will have an adverse impact on the value of their personal property and will also hinder tourism of the surrounding area.

The Board or the Department does not have authority to consider potential impacts to property values or tourism as a basis for determining whether permitting requirements have been satisfied under the applicable laws for any particular project.

Department Recommendation: After reviewing the appellants' arguments, the applicant's arguments, and the supplemental evidence admitted into the record, the Department concludes that the applicant met the requirements for a Site Law and NRPA permit. The Department recommends that the Board deny the appellants' request for a public hearing and affirm the Department's decision to approve the proposed wind energy development in Department Order #L-24441-24-A-N/L-24441-TF-B-N, with the following modifications to the Order:

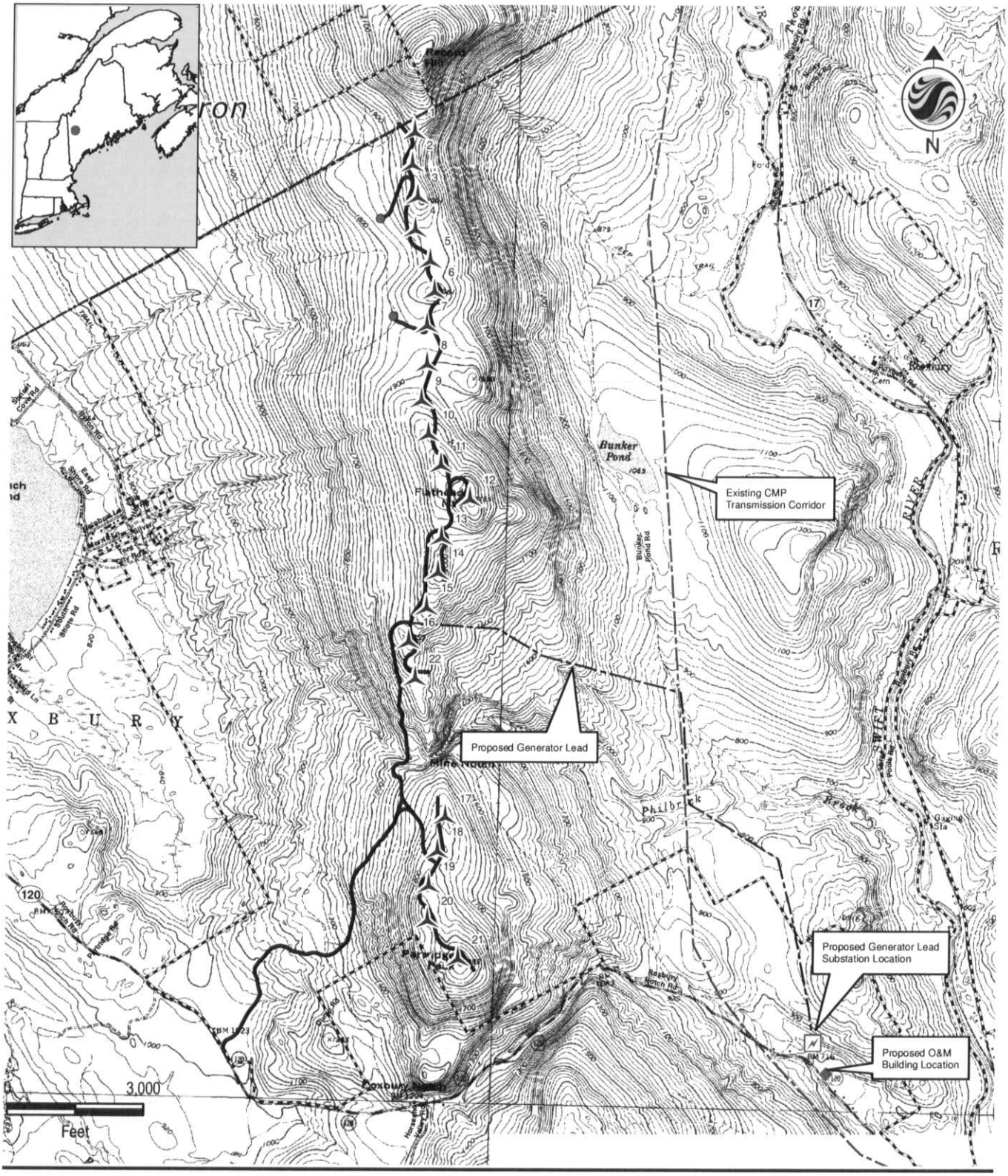
1. The applicant must incorporate the following provisions into its decommission in plan:
    a. On or prior to December 31 of each calendar year for years 1-7 commencing with the commencement of operation of the facility, an amount equal to $50,000 must be reserved

in the form of a performance bond, surety bond, letter of credit, parental guaranty or other acceptable form of financial assurance, to a decommissioning fund;

b. The applicant must reassess the estimated salvage value and overall decommissioning costs at the end of the seventh year of operation in addition to the end of the fifteenth year of operation. The reassessed salvage value and decommissioning cost estimates must be submitted to the Department for review and approval no later than December 31st of the seventh and fifteenth year of operation;
c. The applicant must continue to make annual contributions to the decommissioning reserve in an amount commensurate with the goal of fully funding the decommissioning reserve by the end of the fifteenth year of operation in years 8-15 based on the revised estimates as approved by the department; and
d. If the decommissioning reserve shows a shortfall based on the revised decommissioning cost less salvage value at the end of the fifteenth year of operation the applicant must make a lump sum contribution to the decommissioning reserve in the amount of the shortfall to fully fund the decommissioning reserve.

2. The applicant must submit to the Department for review and approval updated documentation of financial capacity at least 15 days prior to resuming construction in accordance with Chapter 373(1).

Estimated Time of Presentation: 4 hours



Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME USA
04086
Phone (207) 729-1199
Fax: (207) 729-2715
www.stantec.com

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Legend

- Proposed Turbine
- Proposed Access Roads and Crane Paths
- Proposed Permanent MET Tower
- Wagner Lands

Client/Project
Record Hill Wind, LLC
Record Hill Wind
Roxbury, Maine

Figure No.

Title
Project Site Map
July 22, 2009

1.0 Project Description

The Record Hill Wind Project (Project) is a 50.6-megawatt (MW) wind project located in Roxbury, Oxford County, Maine (Figure 1). The Project also includes electrical collection infrastructure, an electrical substation, and an Operations and Maintenance (O&M) Building. The Project also will construct two permanent 80-meter guyed meteorological towers on the project site to monitor wind turbine performance. The locations for these towers are identified on attached Figure 1, as well as Sheets C-100 and C-114 of the Civil Plans included in Exhibit 1.

The turbine portion of the Project consists of 22 Siemens SWT-2.3-93 turbines, each of which is capable of generating 2.3 MW. Each turbine is 80 meters (approximately 262 feet) to the center of the hub, and a total of 126.5 meters (approximately 415 feet) to the tip of a fully extended blade. All of the land utilized for the generation portion of the Project is located within property currently used for commercial forestry operations. The site contains developed logging roads that will be upgraded and used, where appropriate, to minimize clearing and wetland impacts.

Turbines are planned to be located in the town of Roxbury. Power from the 22 turbines will be collected in 34.5-kilovolt (kV) collector lines and delivered to a collector station located southeast of the main ridgeline. The majority of these collector lines will travel underground along the ridgeline and then move aboveground while traveling down-mountain. Once the collector lines reach the existing Central Maine Power Company (CMP)-owned electrical corridor at the base of the ridgeline, the collector line will turn south and travel cross-country to the collector station. The entire length of the generator lead (the portion of the line that travels aboveground) is approximately 2.9 miles. At the collector station, the power will be converted to 115 kV and passed to a new CMP substation for transmission to the regional market through transmission lines owned and operated by CMP. CMP will upgrade these lines prior to project operation. Required permit applications for the line upgrade will be submitted separately by CMP.

Environmental studies completed before filing include two seasons of avian and bat surveys; a breeding bird survey; wetland delineations of the proposed ridgeline turbine corridor, proposed access road corridors, and proposed electrical collection system, including a transmission line corridor and new substation; "in season" vernal pool surveys; and a rare, threatened, and endangered plant species survey. Additional reports and surveys include an analysis of historic architecture, Euro-American and Pre-Contact archaeology, visual impact analysis, shadow flicker analysis, sound analysis, and soils evaluation.

The final design for the Project includes approximately 31,221 square feet of wetland clearing and 10,689 square feet of wetland fill associated with the Project design. Approximately 12 percent of the wetland fill is a result of expanding the existing Mine Notch Road. In addition, there are three new and one expanded stream crossings resulting from the civil design. The generator lead crosses seven streams; none of these seven stream crossings propose any in-stream work.

2.0 Construction Plan

Construction is expected to take place in two phases, with the project fully operational in late 2010. The two-phased approach allows a construction schedule that maximizes the use of dry construction seasons and minimizes environmental impacts associated with spring-time construction. Construction of the project will generally follow the sequence of events detailed below.

Phase 1 –Fall-Winter 2009

1. Mobilization and preliminary layout and staking of new road segments, turbine clearings, an O&M building, and a substation site.
   Week 1 – Week 4

2. Commence clearing operations for roads, electrical collector lines, O&M building, and substation. Installation of erosion control measures in areas specified or required.
   Week 3 – Week 8
3. Installation of erosion control measures in areas specified or required.
   Week 4 – Week 15
4. Stumping, grubbing, and initial rough grading for roads and turbine laydown areas.
   Week 5 – Week 16
5. Blasting as necessary and on-site stockpiling of reusable blasted bedrock/ledge.
   Week 6 – Week 18
6. Stockpiling of imported road aggregate from local borrow pits (if required).
   Week 7 – Week 19
7. Final grading for roads and turbine areas.
   Week 7 – Week 20
8. Construction of turbine foundations and substation transformer pad.
   Week 11 – Week 24
9. Depending on turbine delivery schedule, some installation of overhead/underground 34.5-kV on-site electrical collection system, including pad-mount transformers may take place in this phase. Steps not taking place in 2009 will instead begin during Week 1 of Phase 2.

   Week 13 – Week 30

   <u>Phase 2 – Summer 2010</u>

10. Delivery of turbine components to individual turbine sites.
    Week 1
11. Erection of base/mid-tower sections, assembly of rotors, erection of top tower section and nacelle, and erection of assembled rotor. Tower wiring, final cleaning, and final quality checks of wind turbine.
    Week 2 – Week 20
12. Substation and O&M Building construction.
    Week 6 – Week 21
13. Energization of substation and collection system with quality checks.
    Week 22
14. Commissioning and testing of wind turbine generators and electrical interconnections.
    Week 22-Week 30
15. Start of commercial operations.
    Week 30
16. Reseeding of temporary cleared areas.
    Week 20 – Week 32